

CESIUM STATISTICS

By Thomas D. Kelly and Robert G. Reese Jr.

[All values in metric tons (t) unless otherwise noted]

Year	Production	Imports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1959					2,230,000	12,500,000	
1960					1,190,000	6,550,000	
1961			45		830,000	4,520,000	11
1962			45		830,000	4,470,000	20
1963		0		0	520,000	2,770,000	
1964		1		1	520,000	2,730,000	
1965	0	0		0	580,000	3,000,000	
1966	0	0		0	580,000	2,910,000	
1967	0	1		1	580,000	2,830,000	
1968	0	1		1	580,000	2,720,000	
1969	0	2		2	520,000	2,310,000	
1970	0	2		2	520,000	2,180,000	
1971	0	2		2	520,000	2,090,000	91
1972	0	5		5	520,000	2,030,000	318
1973	0	1		1	520,000	1,910,000	249
1974	0	2		2	520,000	1,720,000	
1975	0	1		1	520,000	1,580,000	73
1976	0	2		2	520,000	1,490,000	73
1977	0	5		5	660,000	1,780,000	18
1978	0	6		6	580,000	1,450,000	
1979	0	11		11	500,000	1,120,000	
1980	0	5		5	500,000	989,000	
1981	0	11		11	500,000	896,000	
1982	0	8		8	660,000	1,110,000	
1983	0	9		9	660,000	1,080,000	
1984	0	24		24	660,000	1,040,000	
1985	0	23		23	720,000	1,090,000	
1986	0	17		17	720,000	1,070,000	
1987	0	19		19	660,000	947,000	
1988	0	23		23	660,000	910,000	
1989	0				690,000	907,000	
1990	0				690,000	861,000	
1991	0				690,000	826,000	
1992	0				38,500,000	44,700,000	
1993	0				38,500,000	43,400,000	
1994	0				38,500,000	42,300,000	
1995	0				40,800,000	43,600,000	
1996	0				40,800,000	42,400,000	
1997	0				43,700,000	44,400,000	
1998	0				63,300,000	63,300,000	

Cesium Worksheet Notes

Data Sources

The sources of data for the cesium worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB), Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS); and Metal Prices in the United States through 1998 (MP98). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were not available.

Production

Production data for the years 1965–98 were recorded from the CDS and the MCS. Production data for the years 1965–98 represent the quantity of cesium-bearing ores that were produced from domestic mines.

Imports

Import data for the years 1963–88 were recorded from the MYB. Import data for the years 1963–88 represent the summed gross weights of cesium chloride and other miscellaneous cesium compounds that were imported into the United States for consumption purposes.

Stocks

Stock data for the years 1961–62 were recorded from the MYB. Stock data for the years 1961–62 represent the quantity of cesium-containing materials that were held in producer and consumer stockpiles.

Apparent Consumption

Apparent consumption data for the years 1963–88 were estimated as being equal to production plus imports. It was noted in the MCS that for the years 1989–98, a few thousand kilograms of cesium were consumed annually in the United States. Such annual consumption data were not available.

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of cesium apparent consumption. Unit value data for the years 1959–98 were recorded from the MP98. Unit value data for the years 1966 and 1978 were not available from the MP98. Subsequently, unit value data for the years 1966 and 1978 were interpolated from the unit value data series. The large increase in unit value that occurs in the transition from the year 1991 to 1992 is the result of a change in the methodology used to determine cesium unit value. From 1959–91, unit value data were estimated to represent the average price of various imported cesium materials of a weight magnitude of at least 1 pound. From 1992–98, unit value data were estimated to represent the price of a 1-gram ampoule of 99.98%-pure cesium metal. Because of its high purity, 99.98%-pure cesium metal has a considerably higher unit value per gram in comparison to the unit value of 1 pound of various cesium materials, such as cesium chloride and other miscellaneous cesium-containing materials.

Unit Value (98\$/t)

Unit value is estimated in terms of constant 1998 dollars by dividing the Consumer Price Index conversion factors, with 1998 as the base year, into the actual unit value data.

World Production

World production data for the years 1961–77 were recorded from the CDS and the MCS. World production data for the years 1961–77 represent the total estimated quantity of cesium-containing materials that was reportedly produced throughout the world.

References

- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
 - 1962–77, Commodity Data Summaries, 1962–77.
 - 1978–95, Mineral Commodity Summaries, 1978–95.
- U.S. Geological Survey, 1997–2000, Mineral Commodity Summaries, 1997–2000.
 - 1997–2000, Minerals Yearbook, v. 1, 1995–98.
 - 1998, Metal Prices in the United States through 1998.
- U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

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